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**From:** Fleisig, Erica [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=57317CE4C3234AFE86380BEAB9C70BD9-EFLEISIG]  
**Sent:** 12/9/2021 6:16:05 PM  
**To:** Sengco, Mario [Sengco.Mario@epa.gov]; Kesler, Karen [Kesler.Karen@epa.gov]  
**CC:** Wilcut, Lars [Wilcut.Lars@epa.gov]  
**Subject:** RE: Se Criteria & Big River Fish

Great! Mario, can you please let the group know that you and Karen are able to join, and leave the door open for Joe to chime in if he wants to participate as well? Thanks!

Erica Fleisig  
Team Leader, Regional Water Quality Standards Branch  
Office of Science and Technology, U.S. EPA  
(202) 566-1057

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**From:** Sengco, Mario <Sengco.Mario@epa.gov>  
**Sent:** Thursday, December 9, 2021 1:14 PM  
**To:** Fleisig, Erica <Fleisig.Erica@epa.gov>; Kesler, Karen <Kesler.Karen@epa.gov>  
**Cc:** Wilcut, Lars <Wilcut.Lars@epa.gov>  
**Subject:** RE: Se Criteria & Big River Fish

I'll be able to attend (even though it's a Friday).

Mario

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**From:** Fleisig, Erica <Fleisig.Erica@epa.gov>  
**Sent:** Thursday, December 9, 2021 1:12 PM  
**To:** Kesler, Karen <Kesler.Karen@epa.gov>  
**Cc:** Sengco, Mario <Sengco.Mario@epa.gov>; Wilcut, Lars <Wilcut.Lars@epa.gov>  
**Subject:** FW: Se Criteria & Big River Fish

Karen, if you're able to attend that meeting, that would be great. Mario if you can join to track that would be great too. No need to plan around me.

Erica Fleisig  
Team Leader, Regional Water Quality Standards Branch  
Office of Science and Technology, U.S. EPA  
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**From:** Wax, Peter N. <pwax@nd.gov>  
**Sent:** Thursday, December 9, 2021 1:06 PM  
**To:** Wirick, Holiday <wirick.holiday@epa.gov>; Aaron Larsen <allarsen@nd.gov>; Wert, Joshua E. <jewert@nd.gov>; Fleisig, Erica <Fleisig.Erica@epa.gov>; Sengco, Mario <Sengco.Mario@epa.gov>; Kesler, Karen <Kesler.Karen@epa.gov>; Wert, Joshua E. <jewert@nd.gov>; Beaman, Joe <Beaman.Joe@epa.gov>; Baker, Joshua <Baker.Joshua@epa.gov>  
**Cc:** Todd, Andrew <Todd.Andrew@epa.gov>  
**Subject:** Se Criteria & Big River Fish

Dear All:

**RE: Collecting Big River fish for Se Criteria Development**

We had a call with the USFWS to see if they would be open to us piggy backing with their fish capture efforts on the Missouri River to get some "Big River" fish (i. e., sturgeon, burbot) for the selenium standards work.

It was a great meeting. The Service is open to helping us out. My only regret is that Erica or Karen were not there as there were some questions on the best time (sexually) to collect fish and number of individuals needed.

Deep Thoughts: It appears possible that we could get some eggs from Pallid Sturgeons. These are the holy grail of endangered fish. These animals have been around for 70 million years. Males live decades and females a century or more. There are very few of the original giants left. And while eggs might not be an ideal comparison with the whole fish we are currently collecting - eggs might still be useful for Se criteria development (possibly Missouri River specific) and the ultimate survival of pallid sturgeons.

We are having an internal meeting on January 21 at 2:00 PM Central time to discuss:

- 1) Species of Interest
- 2) The number of individuals (by species) we would target to not only assist with an eco-region criteria but possibly a Missouri River criteria.
- 3) Laboratory (might want our lab to run additional analysis like Hg or other elements of concern).

Since we are likely to generate more questions, I was wondering if the selenium team or at least a few select members from the team would like to attend. If so, I would send out an invite.

Some additional information:

- 1) It is my understanding that with pallid, paddlefish, sickle fin and sturgeon chub work being done on the big river by the USFWS will be multiple years and we might be able to get multiple bites at the apple.
- 2) While eggs are not a direct comparison it might be possible to build a relationship with whole body data and shovel nose sturgeon

Going to the dogs,

Peter